

Abstract

A flow-through pressure regulator having a housing, and a divider. The housing includes an inlet and an outlet disposed along a longitudinal axis. The divider separates the housing into a first chamber and a second chamber, and includes a seat, a diaphragm, a retainer and a flow diffuser member. The seat defines a passage between the first and second chambers. The diaphragm extends between the housing and the seat. The retainer secures the diaphragm to the seat, and may include a base portion proximate the seat, an intermediate portion extending along the longitudinal axis from the base portion toward the outlet, an end portion extending from the intermediate portion, and at least one aperture having a flow axis that permits fluid communication between the passage and the second chamber. The flow diffuser member is disposed between the passage and the outlet, and defines a plurality of flow paths.